
Subject: Re: AsyncWork, IsFinished() may not be working properly

Posted by [Oblivion](#) on Sat, 18 Jul 2020 13:31:16 GMT

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Happy to help :)

Quote:if there is a way to return from mirek's non-blocking example value

Which example, exactly, are you referring to?

The above code (in which IsFinished() method is called) is already getting the value without any locking mechanism, and is non-blocking. IsFinished() method allows you to check the progress of a given worker instance without waiting on it (i.e. non-blocking). Thus, if the work is finished then Calling Get() won't wait either, it will immediately return the resulting value of the offloaded computation.

Let me put it this way:

```
CONSOLE_APP_MAIN
```

```
{
    StdLogSetup(LOG_FILE|LOG_COUT);

    Array<AsyncWork<Vector<int>>> workers;
    Vector<int> results;

    for(int i = 0; i < 10; i++) {
        workers.Add() = Async([=]{
            Sleep(Random(200));
            Vector<int> v;
            for(int j = i * 10; j < i * 10 + 10; j++)
                v.Add(j);
            return pick(v);
        });
    }

    while(!workers.IsEmpty())
        for(int i = 0; i < workers.GetCount(); i++) {
            auto& w = workers[i];
            if(w.IsFinished()) { // Non blocking check. It will not wait.
                // No locking required, since we dont use a shared variable...
                auto iota = w.Pick(); // Same as Get() but picks ("moves") the resulting vector.
                RDUMP(iota);
                results.Append(iota);
                Sort(results);
                RLOG("Sorted partial results: " << results);
                workers.Remove(i);
                break;
            }
        }
}
```

```
}  
}  
  
RLOG("Final results: " << results);  
}
```

Hopefully, this example can demonstrate the basic usage.

If you want a "real" example, check the SshBasics/SftpMT.cpp example here:
[https://www.ultimatepp.org/reference\\$SshBasics\\$en-us.html](https://www.ultimatepp.org/reference$SshBasics$en-us.html)

IF you have more questions and/or need more help, let me know.

Best regards,
Oblivion
